

Application No. 10/049,456
Response, dated September 26, 2006
In reply to Office Action, mailed June 26, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1-22. (Canceled)

Claim 23 (previously presented): A device for collection of a fluid sample, comprising a barrel having an opening at one end thereof, a plunger operable axially within the barrel, said barrel and said plunger defining a fluid chamber having a volume which varies on axial movement of the plunger within the barrel, and a flexible, hollow, elongate catheter extending from the fluid chamber through said opening in the barrel, said catheter being sufficiently flexible so as to be adapted to bend and follow the conformation of an internal cavity upon encountering walls of said cavity during insertion into said cavity without damaging tissue of said cavity, said catheter further being in operative engagement with said plunger for axial movement to extend and retract the catheter within respect to the barrel on axial movement of the plunger, and said catheter being in fluid communication with the fluid chamber to provide a fluid flow path to and from the fluid chamber through the hollow catheter.

Claim 24 (previously presented): A device according to claim 23, wherein said catheter extends into a chamber in the plunger which is in fluid communication with said fluid chamber.

Claim 25 (previously presented): A device according to claim 23, wherein one end of said catheter is attached to said plunger and said catheter is provided with perforations in the wall thereof at or near the end thereof attached to the plunger for fluid communication with said fluid chamber.

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Claim 26 (previously presented): A device according to claim 23, wherein one end of said catheter is attached to said plunger and the end of said catheter remote from the plunger is sealed, and the catheter is provided with perforations in the wall thereof at or near the sealed end for passage of fluid in and out of the hollow catheter.

Claim 27 (previously presented): A device according to claim 23, further comprising a filter located in the fluid flow path to and from the fluid chamber through the hollow catheter.

Claim 28 (previously presented): A device according to claim 27, wherein the filter is adapted to substantially remove cells and cellular debris from a fluid in said fluid flow path.

Claim 29 (previously presented): A device according to claim 27, wherein the filter is located in the hollow catheter.

Claim 30 (previously presented): A device according to claim 27, wherein the filter is located in the plunger.

Claim 31 (previously presented): A device according to claim 27, wherein the filter is located in the barrel.

Claim 32 (previously presented): A device according to claim 23, further comprising a return device located between the barrel and the plunger of the device.

Claim 33 (previously presented): A device according to claim 23, further comprising means for rotating the plunger on axial movement of the plunger within the barrel of the device.

Claim 34 (previously presented): A device according to claim 33, wherein said means for rotating is adapted to rotate the plunger from 90° to 360° on full axial movement of the plunger within the barrel.

Claim 35 (previously presented): A device according to claim 23, further comprising means for collecting a sample of cells or cellular debris, said means being located on said barrel at or adjacent to said opening at one end thereof.

Claim 36 (previously presented): A device according to claim 35 wherein said means for collecting a sample of cells or cellular debris comprises a brush or brush-like device.

Claim 37 (previously presented): A method for collection of a fluid sample from an internal cavity of a mammal, said method comprising:

(i) locating a distal end of a flexible, hollow, elongate catheter at an opening of the internal cavity.

(ii) penetrating into the internal cavity by moving the catheter into the cavity while simultaneously passing wash fluid through the hollow catheter to wash at least a portion of the surface of the internal cavity during said penetrating; and

(iii) subsequently retracting the catheter from the cavity while simultaneously collecting a fluid sample by aspirating the wash fluid through the hollow catheter during said retracting.

Claim 38 (previously presented): A method according to claim 37, wherein the mammal is a human.

Claim 39 (previously presented): A method according to claim 38, wherein the internal cavity is the uterus of a human female, and the fluid sample is a uterine wash sample.

Claim 40 (previously presented): A method according to claim 37, comprising the further step of filtering the fluid sample to substantially remove cells and cellular debris from the fluid sample.

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Claim 41 (previously presented): A method according to claim 37, wherein a sample of cells or cellular debris is simultaneously collected at the opening of the internal cavity.

Claim 42 (previously presented): A method according to claim 41, wherein the sample is a sample of at least one of ectocervical or endocervical cells.

Claim 43 (previously presented): A method for collection of a fluid sample from an internal cavity of a mammal utilizing a fluid collection device, said method comprising:

(i) providing a fluid collection device comprising a barrel having an opening at one end thereof, a plunger operable axially within the barrel, said barrel and said plunger defining a fluid chamber having a volume which varies on axial movement of the plunger within the barrel, and a flexible, hollow, elongate catheter extending from the fluid chamber through said opening in the barrel, said catheter being in operative engagement with said plunger for axial movement to extend and retract the catheter within respect to the barrel on axial movement of the plunger, and said catheter being in fluid communication with the fluid chamber to provide a fluid flow path to and from the fluid chamber through the hollow catheter;

(ii) locating a distal end of said catheter at the opening of the internal cavity;

(iii) moving said plunger to cause said catheter to penetrate the internal cavity while simultaneously passing wash fluid from said fluid chamber out through the hollow catheter to wash at least a portion of the surface of the internal cavity during said penetrating; and

(iv) subsequently moving said plunger to cause said catheter to retract from the cavity while simultaneously collecting a fluid sample by aspirating the wash fluid through the hollow catheter during said retracting.

Claim 44 (previously presented): A device according to Claim 32, wherein the return device is a coil spring located between the barrel and the plunger of the device.